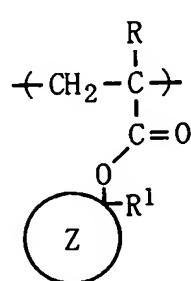


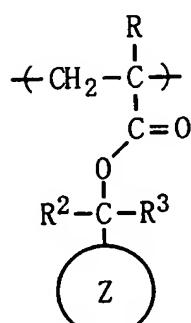
CLAIMS

1. A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group, wherein the resin has a weight-average molecular weight of 3000 to 15000 and has a content of polymer fractions each having a molecular weight exceeding 40000 of 4 percent by weight or less of the total resin.

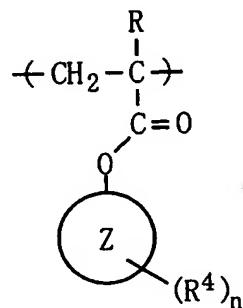
2. The photoresist resin according to claim 1, wherein the constitutional repeating unit A is at least one selected from constitutional repeating units of following Formulae (Ia), (Ib) and (Ic):



(Ia)



(Ib)

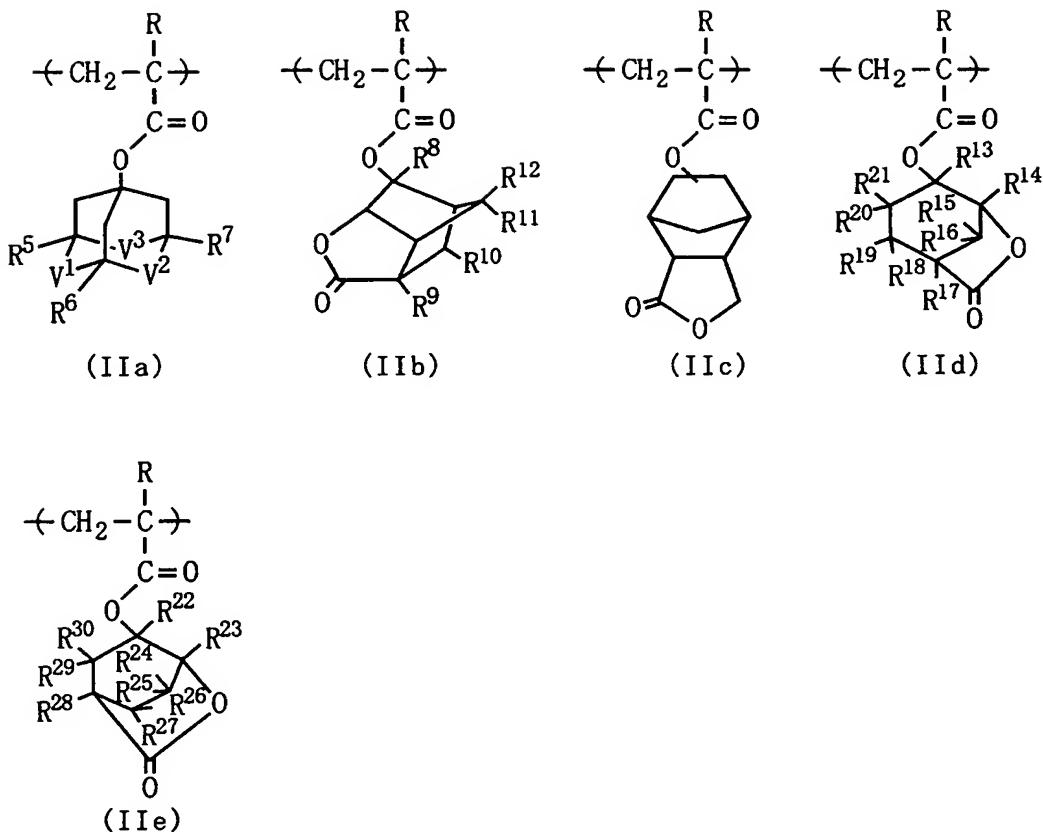


(Ic)

wherein Ring Z is an alicyclic hydrocarbon ring having six to twenty carbon atoms which may be substituted; R is hydrogen atom or an alkyl group having one to six carbon atoms; R¹, R²

and R³ may be the same as or different from one another and are each an alkyl group having one to six carbon atoms; R⁴'s are substituents combined with Ring Z, may be the same as or different from each other and are each oxo group, an alkyl group,
5 a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group, wherein at least one of nR⁴'s is a -COOR^a group, wherein R^a is a tertiary hydrocarbon group which may be substituted,
10 tetrahydrofuryl group, tetrahydropyranyl group or oxepanyl group; and n is an integer of 1 to 3.

3. The photoresist resin according to claim 1 or 2, wherein the constitutional repeating unit B is at least one selected from constitutional repeating units of following Formulae (IIa),
15 (IIb), (IIc), (IId) and (IIe):



wherein R is hydrogen atom or an alkyl group having one to six carbon atoms; R⁵, R⁶ and R⁷ may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; V¹, V² and V³ may be the same as or different from one another and are each -CH₂-, -CO- or -COO-, wherein (i) at least one of V¹, V² and V³ is -CO- or -COO-, or (ii) at least one of R⁵, R⁶ and R⁷ is a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, a carboxyl group which may be protected by a protective group, or a carboxyalkyl group which may be protected by a protective group.

protective group, or a carboxyl group which may be protected by a protective group; R⁸, R⁹, R¹⁰, R¹¹ and R¹² may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰ and R²¹ may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; and R²², R²³, R²⁴, R²⁵, R²⁶, R²⁷, R²⁸, R²⁹ and R³⁰ may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group.

4. A photoresist resin composition, as a solution comprising the photoresist resin of any one of claims 1 to 3 and a light-activatable acid generator in a solvent.

5. A process for preparing a photoresist resin composition, comprising the step of dissolving the photoresist resin of any one of claims 1 to 3 in a solvent.